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Sughrue Mion Zinn Macpeak & Seas 2100 Pennsylvania Avenue NW Washington, DC 20037-3202			EXAMINER	
			PARK, CHAN S	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/613,426	ANDO, HIROFUMI
	Examiner	Art Unit
	CHAN S PARK	2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10 July 2000 .

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-20 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 10 July 2000 is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

 1. Certified copies of the priority documents have been received.

 2. Certified copies of the priority documents have been received in Application No. _____ .

 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

 a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) Interview Summary (PTO-413) Paper No(s) _____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 9-13, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Furukawa U.S. Patent No. 6,029,238.

1. With respect to claim 1, the Furukawa reference discloses a data controller (main controller 61 in fig. 4) comprising:

First data control means to be connected (common data bus 71) to a host, a printer, and a scanner for controlling transfer of data between the host and the printer and transfer of data between the scanner and the host (col. 7, lines 11-29); and

Second data control means for reading and original image by the scanner without an intervention of the host, converting the original image into data that can be interpreted by the printer, and transmitting the converted data to the printer (col. 6, lines 49-53),

Wherein said first data control means can transfer print data from the host to the printer for causing the printer to execute normal print, and the printer can be caused to

print the converted data transmitted by said second data control means, thereby providing a similar copy to the original image (col. 7, lines 11-20).

It can be easily seen from the reference that the digital copier 15 includes a printer for printing image data and a scanner for scanning an original image to be printed, wherein the digital copier is connected to a host computer for data transmission.

2. With respect to claim 2, the Furukawa reference further discloses the first data control means for transferring the data by packet communications (col. 8, lines 4-7).

3. With respect to claim 3, the Furukawa reference further discloses the second data control means for transmitting the converted data to the printer as a printer command rather than in a packet format (col. 7, lines 21-29).

4. With respect to claim 4, the Furukawa reference discloses a data controller (main controller 61) to be connected to a host, a printer, and a scanner, said data controller having (i) a data flow control function for controlling transfer of data between the host and the printer (col. 7, lines 11-20) and transfer of data between the scanner and the host (col. 9, lines 3-13), and (ii) an image data read and conversion function for reading image data by the scanner without an intervention of the host, converting the image data into data that can be interpreted by the printer, and transmitting the converted data to the printer for printing a similar copy to an original image as a local copy (col. 7, lines 21-29),

Said data controller comprising:

Means for receiving a packet (col. 8, lines 6-7) of the image data read from the scanner, transmitting the packet to the host, and transmitting the packet to the host, and

transmitting packet data received from the host for controlling the scanner to the scanner (col. 12, lines 38-43);

 Status retention means for inputting and retaining a packet indicating a status of the printer from the printer (col. 9, lines 3-14);

 Means being responsive to an inquiry about the status of the printer from the host for receiving the packet indicating the status from said status retention means and transmitting the packet to the host and transmitting packet data received from the host for controlling the printer to the printer (col. 9, lines 36-61 & col. 10, lines 59-63); and

 Conversion-to-command means for converting image information input from the scanner without the intervention of the host into a command that can be interpreted by the printer (col. 6, lines 49-53).

5. With respect to claim 5, the Furukawa reference further discloses the status retention means for inputting and retaining the printer status from the printer periodically (col. 10, lines 8-19).

6. With respect to claim 6, the Furukawa reference discloses a data controller further comprising data flow regulation means for asynchronously regulating data flow between the host and the printer, data flow between the scanner and the host, and data flow between the scanner and the printer (col. 18, line 59 – col. 19, line 57).

7. With respect to claim 7, the Furukawa reference further discloses a local copy start (starting copy) switch for making it possible to manually start a local copy (col. 7, lines 34-53).

8. With respect to claim 9, the Furukawa reference discloses a printer for receiving print data from a host and printing the print data and also printing an original image input through image read means contained in said printer (col. 7, lines 11-20), said printer comprising:

A data reception section (communication controller 70);

An interpretation section that can interpret a command proper to said printer (col. 7, lines 15-16); and

An interface unit (common data bus 71) comprising: (i) data flow control means for controlling transfer of data between the host and said data reception section (main controller 61 in conjunction with communication controller 70) and transfer of data between the image read means (image reader controller 73) and the host, and (ii) image data read and conversion means for converting image data read from the image read means without an intervention of the host into a command that can be interpreted by said interpretation section and sending the converted command to said data reception section (col. 7, lines 21-29),

Wherein the print data from the host is received at said data reception section under control of the data flow control means and is interpreted by said interpretation section (main controller 61), then is expanded into image data and the image data is printed, and the command converted by the image data is read and conversion means is received at said data reception section and is interpreted by said interpretation section, thereby expanding into the same image data as the image data and printing the

image data, whereby a copy of the original image input through the image read means can be produced (col. 7, lines 21-29).

9. With respect to claim 10, the Furukawa reference further discloses the data flow control means that transfers the data by packet communications (col. 8, lines 5-7).

10. With respect to claim 11, the Furukawa reference discloses image data read and conversion means that sends the converted command to said data reception section intact as a command proper to said printer without further converting the converted command into a packet format (col. 7, lines 21-29). The system according to the reference acts as copy machine, which does not necessarily require packetizing of image data. This is inherent since scanning means and printing means are all done in one system.

11. With respect to claim 12, the Furukawa reference discloses a print system comprising a plurality of logical channels (common data bus 71 and network interface 72), wherein data flow between a host computer and a printer, data flow between the host computer and a scanner, and data flow between the printer and the scanner are paired and are controlled separately using a plurality of said logical channels (main controller 61). The reference clearly teaches that the communication means among the printer, the scanner, and the host is bi-directional to request and receive the status information. Also, the main controller 61 controls the communication means (col. 7, lines 6-53).

12. With respect to claim 13, the Furukawa reference discloses a data controller to be connected to a host, a printer, and a scanner, said data controller having (i) a data

flow control function for controlling transfer of data between the host and the printer (col. 7, lines 11-20) and transfer of data between the scanner and the host (col. 9, lines 3-13), and (ii) an image data read and conversion function for reading image data by the scanner without an intervention of the host, converting the image data into data that can be interpreted by a first interpretation section of the printer, and transmitting the converted data to the printer for printing a similar copy to an original image as a local copy (col. 7, lines 21-29),

Said data controller comprising:

A second interpretation section having an interpretation capability similar to that of the first interpretation section of the printer,

Wherein, when the similar copy to the original image is printed as the local copy, said second interpretation section interprets a command issued from the host to the printer, and predetermined necessary operation is executed instead of the printer in response to an interpretation result (col. 9, lines 3-13).

13. With respect to claim 15, the Furukawa reference further teaches that if the command is determined a status request from the host as the interpretation result of said second interpretation section, the predetermined necessary operation is to read the status from the printer and transmit the read status to the host as a packet (col. 9, lines 36-60).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa.

14. With respect to claim 14, the Furukawa reference discloses all the limitations of claim 13 and it further discloses the packet data communication between the host and the printer.

However, Furukawa does not explicitly disclose if the packet communication can be used in the data transfer between the scanner and the host.

Having known and taught the network digital copier and the method of packet data communication between the host and the printer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use packet communication between scanner and the host. Also, it is well known to packetize a data with the network address for the benefit of transmitting data to the desired destination without losing the data.

15. With respect to claim 16, arguments analogous to those presented for claims 4, 13, and 14, are applicable.

16. With respect to claim 17, arguments analogous to those presented for claim 5, 6, 14, are applicable.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa as applied to claim 4 above, and further in view of Ohnishi U.S. Patent No. 6,067,169.

17. With respect to claim 8, the Furukawa reference discloses all the limitations of claim 4 but it does not explicitly disclose if the scanner can read a color original image and output YMCK binary image data.

The Ohnishi reference, on the other hand, discloses a digital color copying machines (103, 104) and scanners (109, 110) connected to a host computer for communicating with one another (fig. 1). It further discloses a data controller (interface device 101) having a CPU (second CPU 209) for controlling transfer of data between a printer and a host computer and transfer of data between a scanner and a host computer (col. 3, lines 37-52). It further discloses a digital copier that is capable of sending current status when a status request is requested by the host computer (col. 7, lines 41-48). Furthermore, it discloses a color scanner for reading color original image and outputting YMCK binary image data (col. 4, lines 16-30).

Furukawa and Ohnishi are analogous art because they are from the same field of endeavor that is the digital copier art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the color scanner of Ohnishi with the digital copier of Furukawa.

The motivation for doing so would have been to generate color image copies.

Therefore, it would have been obvious to combine Furukawa with Ohnishi to obtain the invention as specified in claim 8.

Claims 18, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa as applied to claim 16 above, and further in view of Smilansky et al. U.S. Patent No. 5,339,176.

18. With respect to claim 18, the modified Furukawa reference discloses all the limitations of claim 16 but it does not disclose a first scanner for reading a color original image and outputting YMCK binary image data and a second scanner for reading a color original image and outputting RGB full color image data.

Smilansky et al. discloses a first scanner (scanner 114 in fig. 1B) for reading a color original image (128) and outputting YMCK binary image data (134) and a second scanner (116) for reading a color original image and outputting RGB full color image data (130).

Furukawa and Smilansky et al. are analogous art because they are from the same field of endeavor that is the color scanner art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the color scanner of Smilansky et al. with the digital copier of Furukawa.

The motivation for doing so would have been to generate color image copies by converting the original into either RGB or YMCK image data. It would have also been to technique and apparatus for calibrating a color-processing device in a color digital copier.

Therefore, it would have been obvious to combine Furukawa with Kitamura et al. to obtain the invention as specified in claim 18.

19. With respect to claim 19, the Smilansky reference further discloses color image data conversion means for receiving the RGB full color image data (130) from the second scanner (116) and converting the image data into the YMCK binary image data (132).

20. With respect to claim 20, the Smilansky reference fails to discloses data regulation means for discriminating between the YMCK binary image data received from the first scanner and the RGB full color image data received from the second scanner. The reference discloses the direct connection without the intervention of image data flow regulation section. However, in the applicant disclosed drawing, first scanner (400A) and second scanner (400B) have their own transmission lines to the data controller. Therefore, it is would have been obvious to one having ordinary skill in the art at the time the invention was made that the image data generated by the first scanner goes to conversion-to-command section without color image data converter and the image data generated by the second scanner goes to conversion-to-command section via color image converter.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,400,463 to Kitamura et al. discloses a color digital copier having a communicating means for transmitting data between a host computer and the copier.

U.S. Patent 6,177,934 to Sugiura et al. discloses a server device for transferring reading characteristics of a plurality of scanner printers to a designated client host computer and through a network.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S PARK whose telephone number is (703) 305-2448. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

csp

October 27, 2003


EDWARD COLES
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